Federal Communications Commission

Background

KISD is in the third year of a three year strategic initiative focused on fundamentally changing the way teachers are instructing in the classroom. In order to accomplish this instructional change, the solution had to be more than a device. KISD focused on three key areas; Web 2.0 Integration, Digital Citizenship and Mobile Learning. The introduction of Web 2.0 and Digital Citizenship was district wide and very well received. In 2009 KISD piloted 138 MLD's at one elementary school providing every fifth grader with a device. Based on the positive feedback from teachers, parents and administrators combined with improved test scores, lower discipline and better attendance, KISD expanded the MLD initiative in 2010 to eleven elementary campuses for a total of 1500 devices. The results for 2010 mimicked the results experience in 2009. The 2011-2012 school year brought additional mobility opportunities to KISD. First, because of this grant KISD was able to expand the MLD program to 8 additional campuses bringing the total MLD deployment to 18. Secondly, beginning in 2011 every KISD campus was equipped with a Public Wi-Fi infrastructure, allowing teachers and students to bring their personal internet enabled devices to school.

1.   Project Benefits

(a)   a description of how the wireless devices were integrated into the project's curriculum and objectives (including approximately how many times per week the wireless devices were used to access program materials remotely and how many wireless devices were used during this period of time)

Katy ISD's Mobile Device Project was employed in order to increase engagement and promote success within the curriculum already in place. A stand-alone curriculum is not being used, but new methods and tools were implemented for acquiring data, analyzing information and presenting ideas.

The foundation application for the classroom teachers and students is Edmodo. Through this application, students can read posts from the teacher, comment, check for assignments, add deadlines and events to their calendar, and turn in assignments. Teachers also use Edmodo to link students to other sites and applications they will be using throughout the day.

Other applications commonly used on mobile devices include:
- Google Earth
- Dictionary.com
- Discovery Education
- Math Workout
- ThinkingSpace
- Mind Map Memo
- Color Notes
- PicSay
- 50 States
- Google Sky Map
- Smart Measure

A few examples of lessons completed on Mobile Learning Devices:

- Kidblogs: Students complete reader response activities using Kidblogs. The teacher posts comments and questions on the blog and students use their devices to add their analysis and understanding of the content. The teacher reports that "The quantity and quality of the responses has improved tremendously by integrating the mobile devices".
- Discovery Education: Teachers use Discovery Education to assign lessons. Students access the lesson objective on their devices and proceed to complete the lessons by reading eBooks, watching video segments, completing virtual labs, and taking an online quiz.
- PicSay: Students take a picture of an object and then label that picture in PicSay with appropriate mathematical descriptions such as cylinder, equilateral triangle, quadrilateral, etc.

When asked what methods of instruction/strategies were effected by MLD's, teachers responses were as follows:

- As a bilingual teacher, I see how my students are improving their vocabulary, comprehension. They also have the opportunity to expand and build some prior knowledge by using Discovery ED, Brainpop, etc.
- Social learning and peer teaching/tutoring has been incredible. Students are eager to show what they have discovered and will help each other online at home when I am not available to them.
- They are learning responsibility in an entirely new way- awesome!
- Learning how to research certain topics, peer interaction (teaching each other about MLDs and book club discussions on Edmodo)
- Students are independently reading for information
- I find that I am able to assign various activities for students to work within a certain timeframe which results for better time management for instruction and students. Most assignments are assigned via Edmodo with specific instructions to design and delivery.
- Increased engagement on assignments, being able to use various sites as a study guide resource for an upcoming test, connecting with fellow classmates about assignments as well as connecting with teacher after school hours about any misunderstanding of the homework.
- Web surfing activities, Interactive activities through StemScopes, educational applications improved their practice (math attack, etc)
- We have used the MLDs to help teach story structure, branches of government and the Bill of Rights activities using games on Quia. I have also used Edmodo to post review questions to my leveled groups about their reading passages. It has made spelling more interesting as they use the Ace Your Spelling Test app each week, as well as record the spelling of each word using the Voice Recorder App.

2011-2012 MLD Usage By Campus
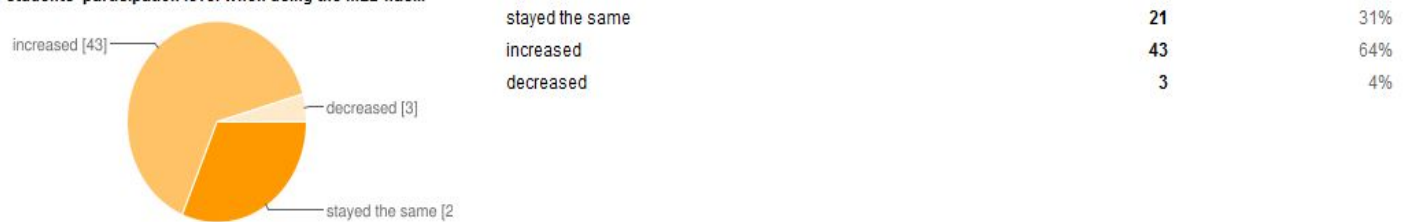

2011-2012 MLD Off Premise Usage - Average
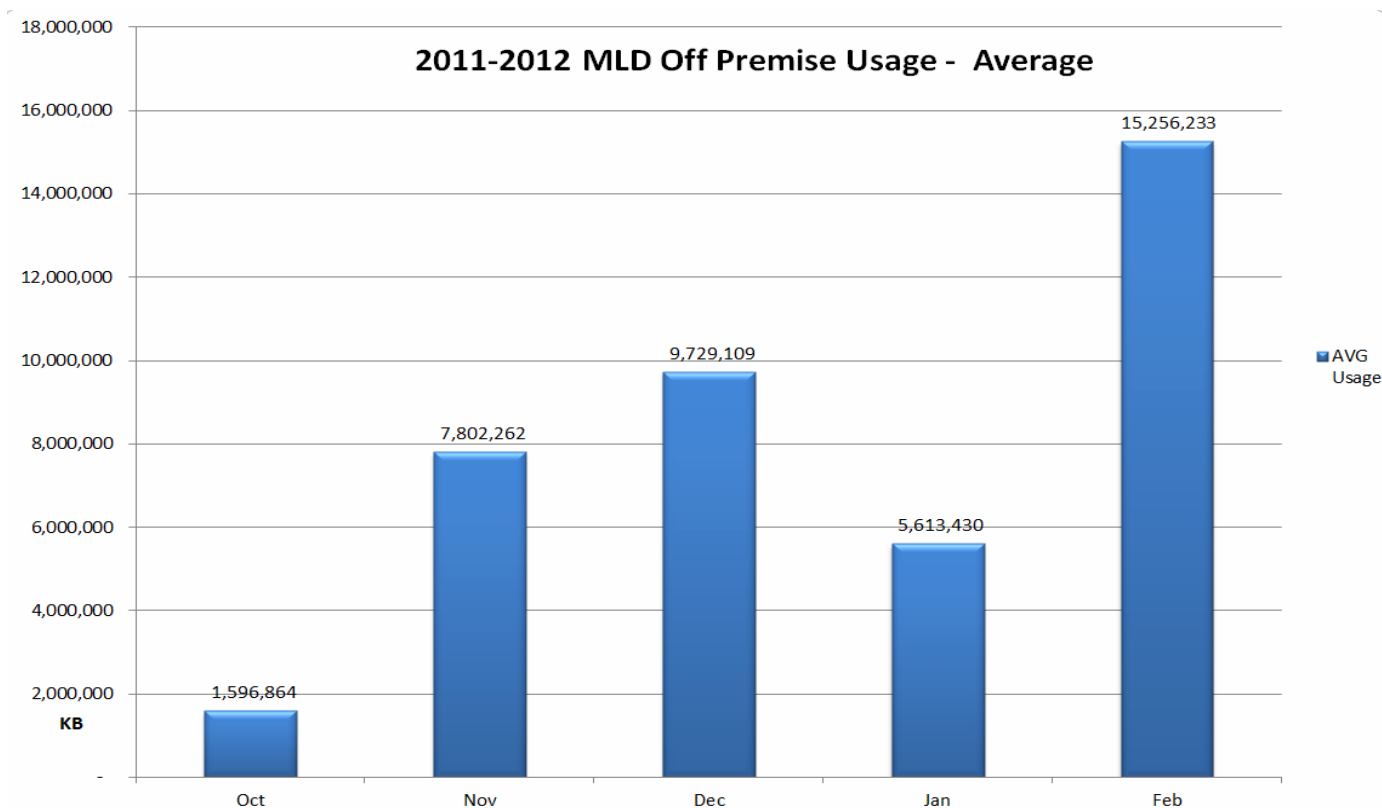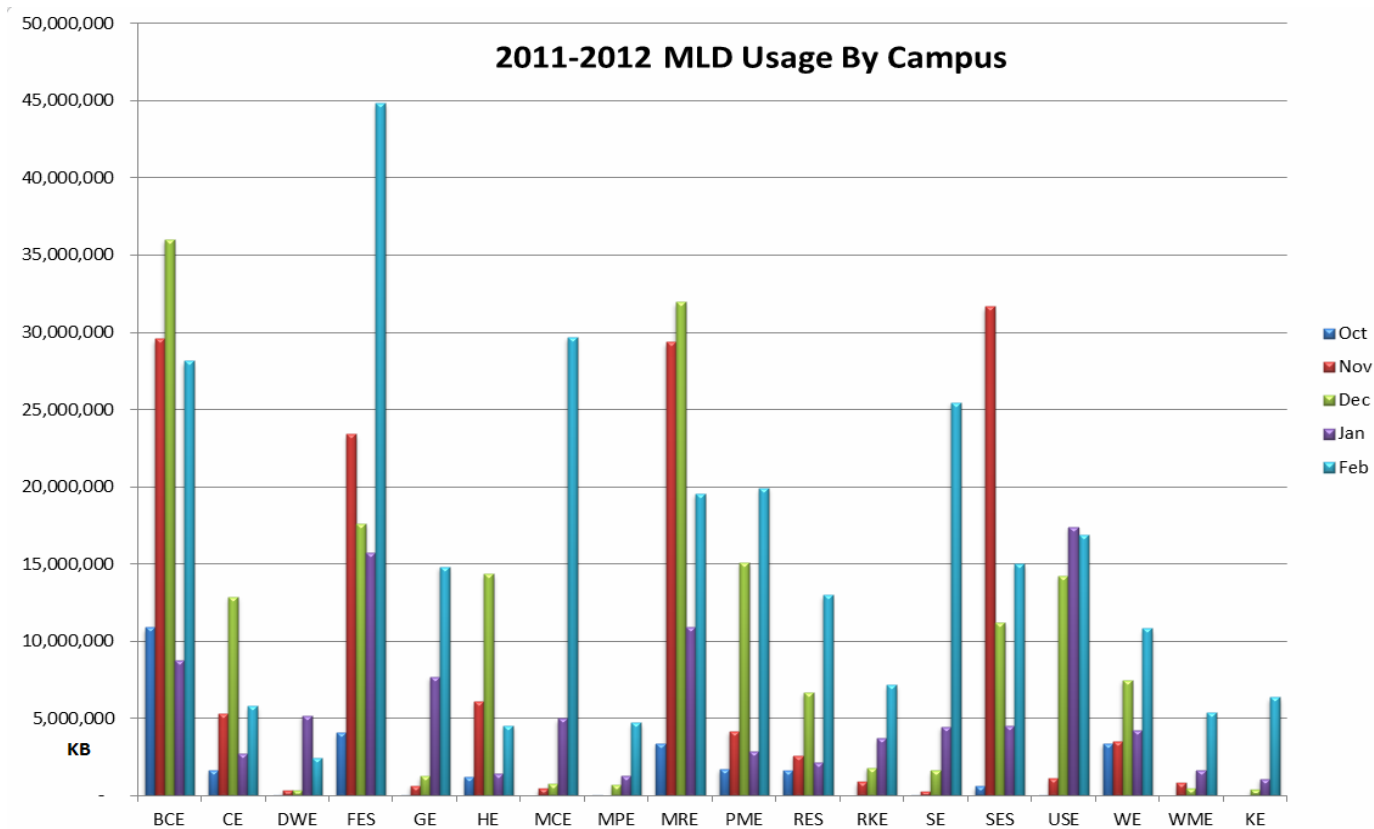
(b)   if available, a detailed summary of any data collected by the school or library on the project's outcomes and achievement of the project's goals, including usage of educational research

Our project goals were varied as outlined above, but student engagement, participation and achievement are the focus. The following statistics show the level of implementation in the classroom and the impact that has had on teacher instruction and student learning.

How often do you use MLDs in your classroom?

Daily	31	46%
2-3 days a week	19	28%
Once a week	9	13%
Seldom	8	12%
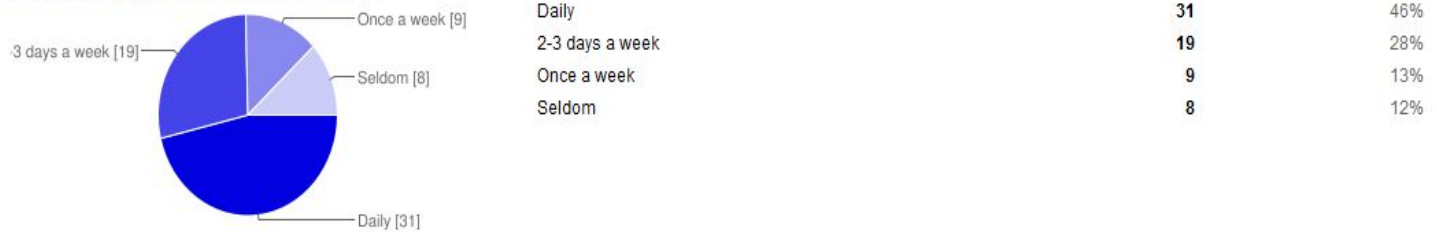
My students' participation level when using the MLD has...

stayed the same	21	31%
increased	43	64%
decreased	3	4%

Participation in the Mobile Learning Device program has positively impacted your instruction...

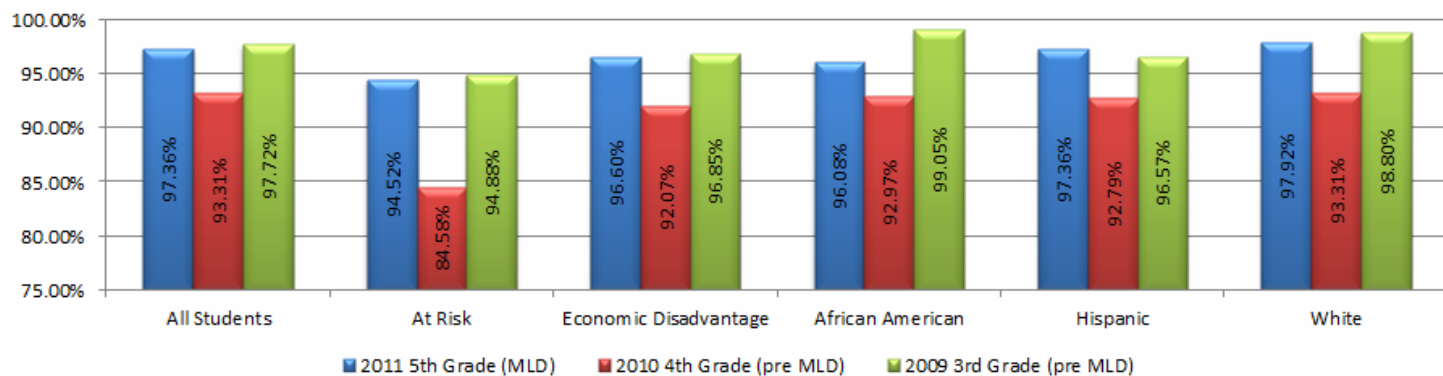|		
significantly	29	43%
somewhat	32	48%
no impact	6	9%
negative impact	0	0%
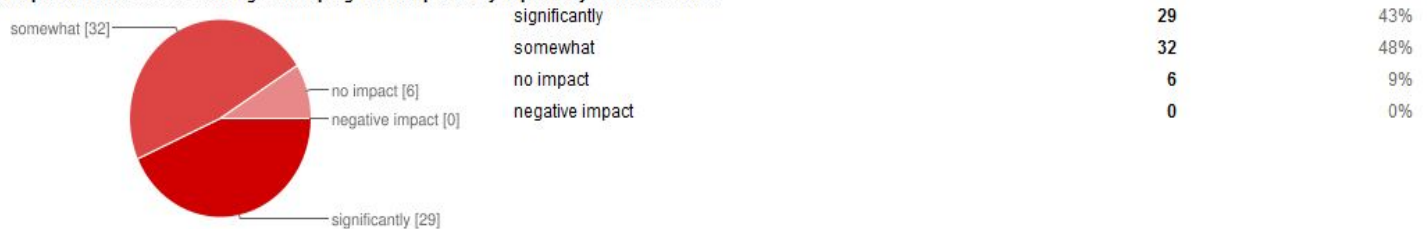
- For schools, include any data collected regarding the impact on test scores or other measures of achievement levels for those students participating in the off-premises wireless project. Resources by students and library patrons and number of devices actually used.

The 2 charts below show the same student's test scores for Math and Reading during the year they were using MLD's (blue) and also the two years prior to them having access (red, green).

KISD MLD Students Math TAKS, Cohort

Legend: 2011 5th Grade (MLD), 2010 4th Grade (pre MLD), 2009 3rd Grade (pre MLD)

	All Students	At Risk	Economic Disadvantage	African American	Hispanic	White
2011 5th Grade (MLD)	96.45%	91.93%	95.09%	92.16%	96.41%	98.53%
2010 4th Grade (pre MLD)	92.21%	82%	90.23%	90.62%	90.50%	95.42%
2009 3rd Grade (pre MLD)	88.79%	73.22%	86.71%	86.79%	87.69%	90.80%
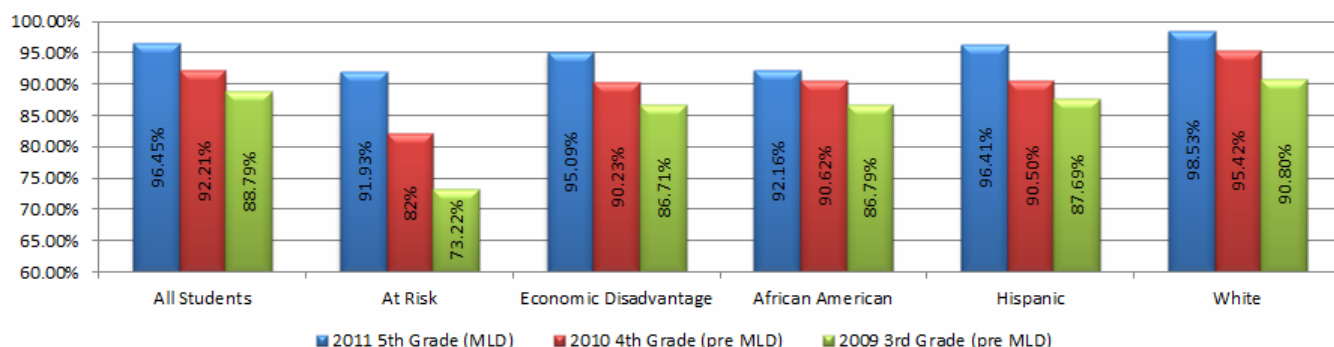
KISD MLD Students Reading TAKS, Cohort

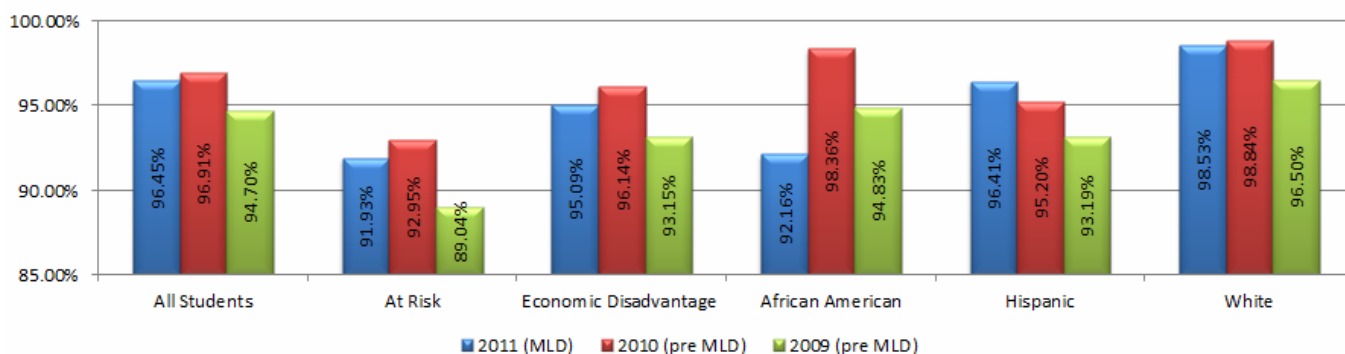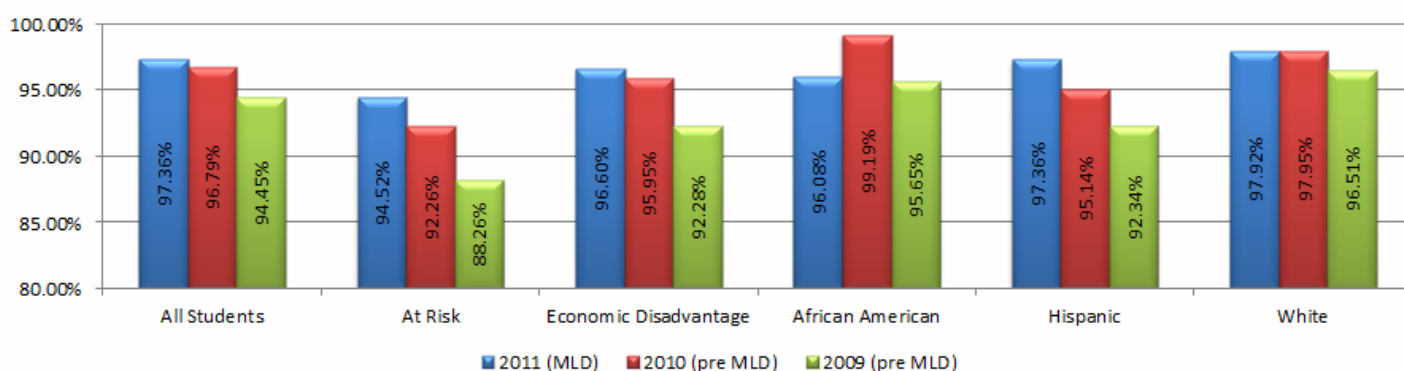|	All Students	At Risk	Economic Disadvantage	African American	Hispanic	White
2011 5th Grade (MLD)	97.36%	94.52%	96.60%	96.08%	97.36%	97.92%
2010 4th Grade (pre MLD)	93.31%	84.58%	92.07%	92.97%	92.79%	93.31%
2009 3rd Grade (pre MLD)	97.72%	94.88%	96.85%	99.05%	96.57%	98.80%

The 3 charts below shows test scores of students in 5th grade who had MLD's (blue) and students from previous years (red, green) who did not have MLD's.
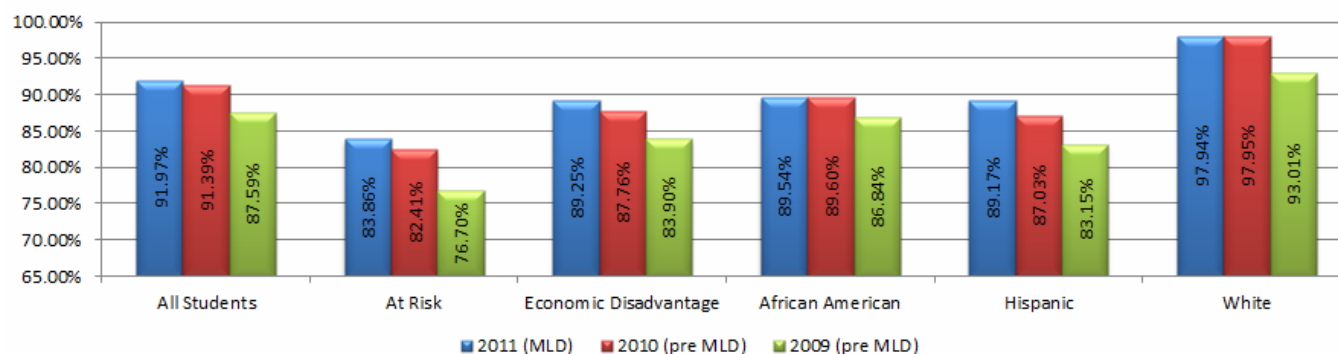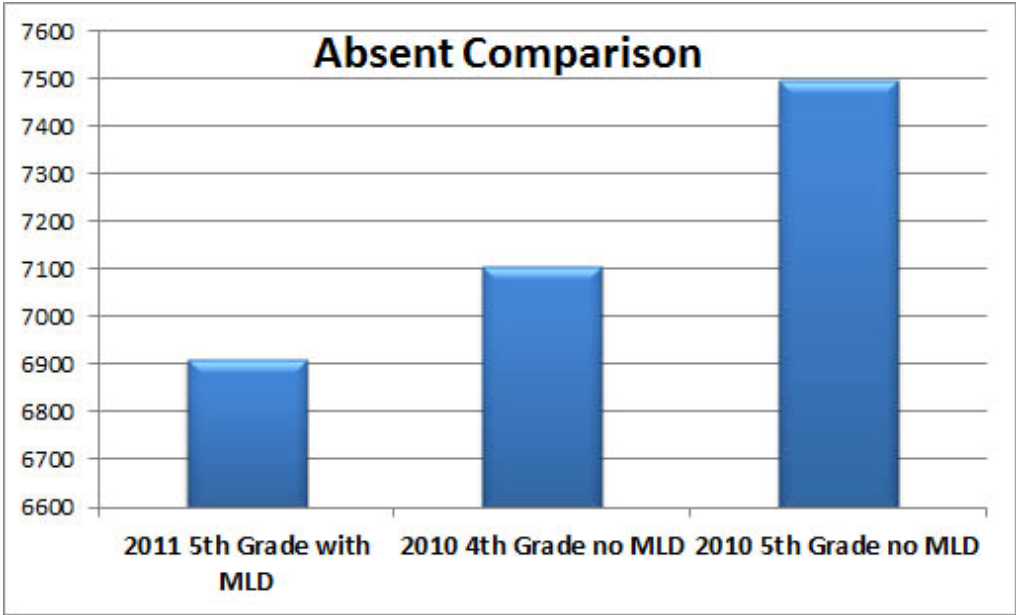
KISD MLD Students Math TAKS, Longitudinal

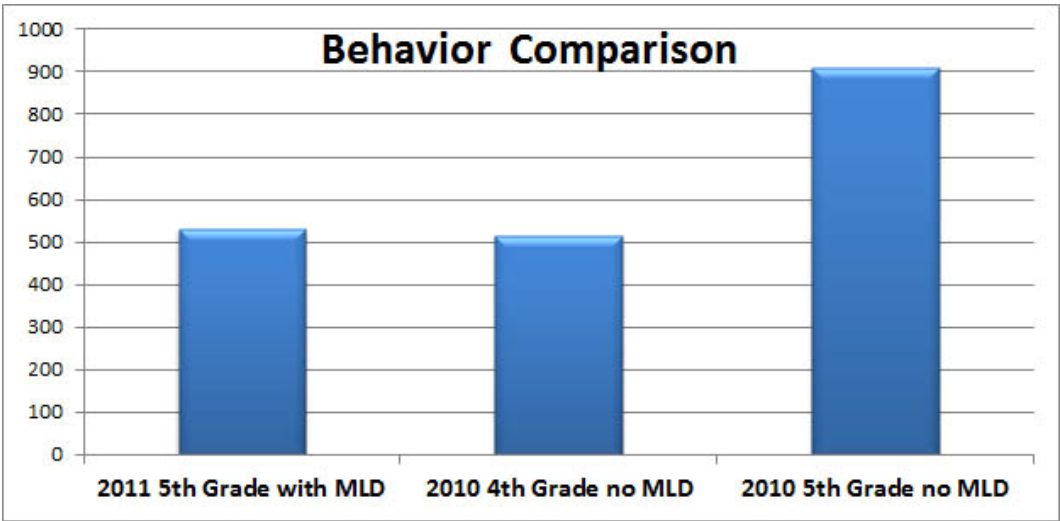|	All Students	At Risk	Economic Disadvantage	African American	Hispanic	White
2011 (MLD)	96.45%	91.93%	95.09%	92.16%	96.41%	98.53%
2010 (pre MLD)	96.91%	92.95%	96.14%	98.36%	95.20%	98.84%
2009 (pre MLD)	94.70%	89.04%	93.15%	94.83%	93.19%	96.50%

KISD MLD Students Reading TAKS, Longitudinal

	All Students	At Risk	Economic Disadvantage	African American	Hispanic	White
2011 (MLD)	97.36%	94.52%	96.60%	96.08%	97.36%	97.92%
2010 (pre MLD)	96.79%	92.26%	95.95%	99.19%	95.14%	97.95%
2009 (pre MLD)	94.45%	88.26%	92.28%	95.65%	92.34%	96.51%

KISD MLD Students Science TAKS, Longitudinal

	All Students	At Risk	Economic Disadvantage	African American	Hispanic	White
2011 (MLD)	91.97%	83.86%	89.25%	89.54%	89.17%	97.94%
2010 (pre MLD)	91.39%	82.41%	87.76%	89.60%	87.03%	97.95%
2009 (pre MLD)	87.59%	76.70%	83.90%	86.84%	83.15%	93.01%

The charts below give the results of absences and behavior. We found that the absenteeism improved the year students had the mobile learning device.   Students are excited to be held accountable for this device. The learning is self-directed when students are given responsibility of making choices for the mode in which they want to learn the new concept.

Absent Comparison

Category	Value
2011 5th Grade with MLD	~6900
2010 4th Grade no MLD	~7100
2010 5th Grade no MLD	~7500

Behavior improved significantly when comparing students 5th grade to 5th grade. However , showing a slight increase on behavior when the same students move from 4th grade to 5th grade. The 5th grade students previous year had almost twice the amount of behavior incidents without the MLD. Therefore a conclusion could be drawn that the MLD helped with discipline issues.

Behavior Comparison

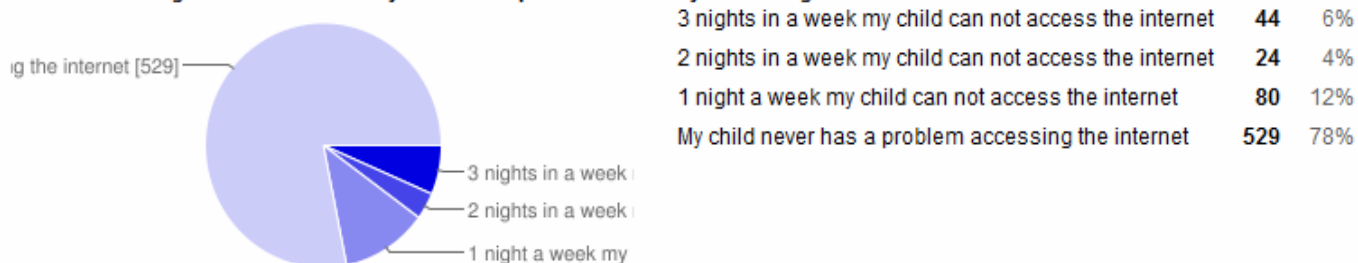| Category	Value
2011 5th Grade with MLD	~530
2010 4th Grade no MLD	~510
2010 5th Grade no MLD	~910

(c)if available, a copy of any results or summary of the results of any survey given to students, teachers,
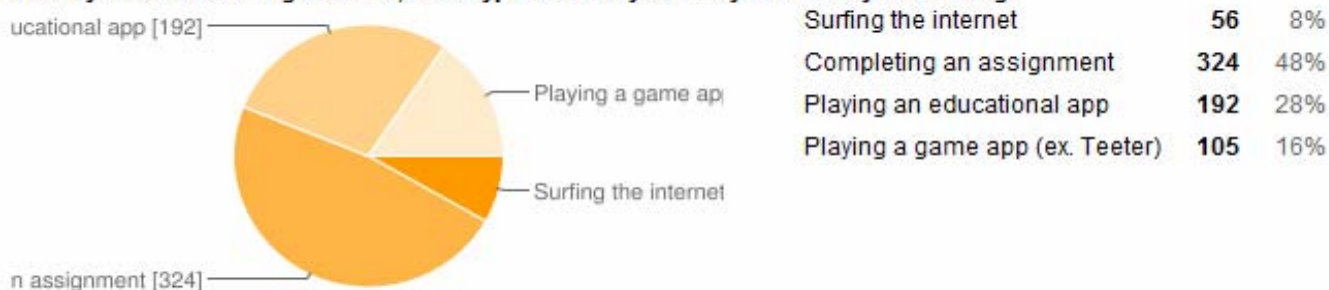
parents or library patrons to assess any aspects of the off-premises wireless project;

Parents have been overwhelmingly supportive of the Mobile Learning Project at Katy ISD. More than 680 parents completed a survey and over 80% made positive comments about the impact the devices and access at home have had on their child's education. Below are more results and some sample comments received from the open ended portion of the survey.
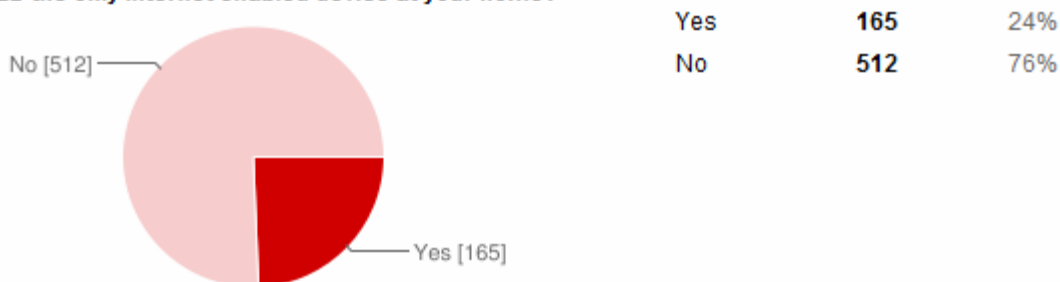
How often during a weeks time does your child experience difficulty accessing the internet at home on their MLD?
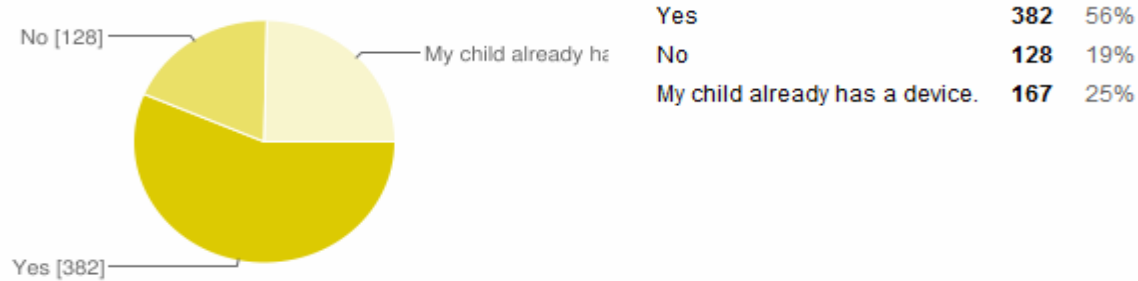
3 nights in a week my child can not access the internet	44	6%
2 nights in a week my child can not access the internet	24	4%
1 night a week my child can not access the internet	80	12%
My child never has a problem accessing the internet	529	78%

ig the internet [529]
3 nights in a week
2 nights in a week
1 night a week my

When your child is using the MLD, what type of activity are they most likely to be doing?

ucational app [192]
Playing a game ap
Surfing the internet
n assignment [324]

Surfing the internet	56	8%
Completing an assignment	324	48%
Playing an educational app	192	28%
Playing a game app (ex. Teeter)	105	16%

Is the MLD the only internet enabled device at your home?

No [512]
Yes [165]

Yes	165	24%
No	512	76%

Based on this program would you be willing to purchase your student a low cost, personal device for use at Jr. High?

Yes	**382**	56%
No	**128**	19%
My child already has a device.	**167**	25%

No [128]

My child already ha

Yes [382]

How often during a weeks' time does your child experience difficulty accessing the Internet at home on their MLD?

1 night/week - 14%
2 nights/week- 4%
3 nights/week- 7%
Never -   75%

Sample Parent Survey Comments:

- "The device made it where she was excited to finish homework and it did not feel like doing homework."
- "In fact it has help my child on homework assignments that I'm not real sure about, and I really think the MLD is a very good device for students. It makes Miguel's education a better experience."
- "Isaac enjoys learning on the apps. They are really educational and make learning easier for him."
- "It's easier for my child to complete her assignments and homework. She sometimes plays her
- game apps but mostly she is completing her Edmodo assignments. It's quick and much more comfortable than paper work. So her MLD is a useful device for school."
- "This has been useful because he is able to finish his homework faster and always has access to
- different school topics that he can study in his spare time. Besides he never forgets his homework in the desk classroom."

Katy ISD teachers are relying on the mobile learning device (MLD) because of the rich, engaging resources at the students' fingertips. Since the device is readily available for students no matter their location, the lessons have evolved to rely heavily on this mobile device. Uploading and posting lessons and resources not only for school work but for homework as well makes this learning environment unique because learning with technology continues with them no matter the location or time of day.

Learning with technology is no longer viewed as something you do on certain days in the computer lab but with the MLD it has become an integral part of their day. Understanding new concepts and going much further and deeper on a topic than what is expected from a state goal is what has been

experienced in our MLD classrooms. One teacher states, "Learning so much more than what we are required to teach them" really sums it up from the teacher perspective.

Placing students on the same playing field by giving them all access to the endless resources ensures the teacher that he or she can assign homework requiring a connection to the Internet. Using the MLD to access vocabulary has been one of the most helpful avenues. Giving both the English Language Learner and the student who is learning new concepts the vocabulary in multiple delivery modes assists that student to a meaningful correlation in the best way for each individual. Videos, animations, words spoken in multiple languages are a few ways that the MLD has proven to be very successful with vocabulary. Since the student has been exposed to the various ways to learn new vocabulary, it is automatic to them now. The student has become in charge of their own learning by knowing the best method of gaining the new concepts.

The MLD offers the ability to take formative assessments which gives the students and teachers the instant feedback that is needed during the learning process. Many students are gamers and they are faced with decision points every 1.5 seconds and a response to the decision every 7 seconds. Sometimes the response is one that is favorable to the decision point while some are not. The point is feedback. Learners need the constant feedback due to the fact we are constantly giving them many concepts to learn throughout the day.
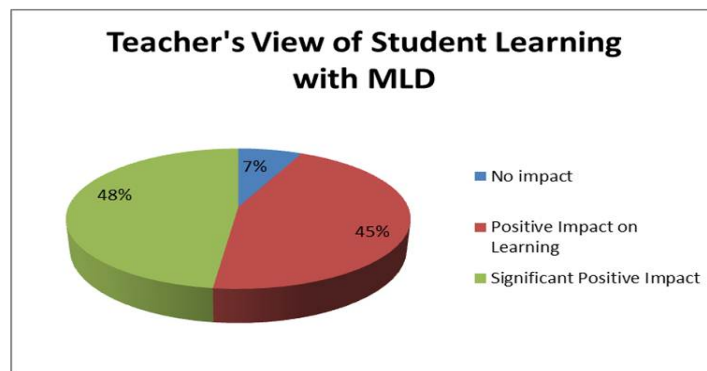
The MLD has by far been the best investment because of the multi-functional capability it has for the classroom. Videos, camera, Internet connection, educational games, applications that allow teacher to student connections, dictionary, encyclopedia, books, audio books, podcasts, simulations, animations, response system, computer, blog, etc. We could go on about the multiple ways the MLD is used throughout the day. The MLD provides the individual student the device needed to learn in the 21st Century classroom and become responsible for their learning.

Teacher Quotes:
- "Social learning and peer teaching/tutoring has been incredible. Students are eager to show what they have discovered and will help each other online at home when I am not available to them. Also- they are learning responsibility in an entirely new way- awesome!
- "Engagement is terrific. Ownership of learning and the level of curiosity has increased because when students have that moment of "I wonder.." they have instant access to information at all times of day."
- "Students are able to do much more researching using the MLDs. While researching, students are learning how to sort through all of the bad websites and get to the ones that will give them the best information possible. Students are also more excited about researching things that would normally be boring to them."
- "Having the MLD's as a part an instructional resource has been phenomenal. Students are asking higher order thinking questions. Matters of fact, those questions are then redirected to the

student to research and get back to the class with the answer. As an educator, I'm able to bring the necessary and planned instructions but the students are taking this information and running with it. They (the students) are embracing the concept of the desire to learn and explore therefore embracing lifelong learning."

- "Increased engage on assignments, being able to use various sites as a study guide resource for an upcoming test, connecting with fellow classmates about assignments as well as connecting with teacher after school hours about any misunderstanding of the homework."
- "Students are able to practice concepts I've taught in math using apps and games on their MLD. For example, after I taught Area and Perimeter, students were given QR codes to scan that took them to games they could practice finding the area and perimeter of shapes. Typically, students would be given a worksheet to practice solving these problems and now they can use interactive games that reinforce concepts while they have fun."

Teacher's View of Student Learning with MLD

- No impact — 7%
- Positive Impact on Learning — 45%
- Significant Positive Impact — 48%

(d) The Southern Tier Library System, a description of how the off-premise wireless project facilitated access in the community to any needed services, such as job applications, governmental services, job training, online learning opportunities, and any other community services (including any available data of the number of patrons that were able to complete job applications, seek governmental services, or access educational opportunities).

For KISD, the support for off-premise connectivity to the over-all program is critical. One of the primary goals of the project is to teach students how to effectively use mobile learning devices and the associated resources available to them allowing learning to be continual. Students need the availability of resources for learning "as easily as they use pencil and paper today". Making it transparent to the learners when they access, create and communicate information is paramount to the success of the program. The additional and critical long term strategy for KISD is for students moving into the 6th grade using their own mobile learning devices at school and at home. Without off-premise connectivity,

the KISD Mobile Learning Program cannot train and model to the teachers and students the new processes of 24/7 learning.

Equally important to the Mobile Learning Program is to ensure that all 5th graders are learning how to use and access the mobile learning devices. The continual connection when leaving the building allows students the benefits of learning anytime, anywhere. Without off-premise connectivity, the KISD Mobile Learning Program cannot provide or maintain the rich learning environment outside the school's walls. Connectivity is also required for the use of research projects and is invaluable as it allows students to access Katy ISD online Library resources and the Web 2.0 Toolkit. This positively affects students' performance by providing an "even playing field" for student Internet access at home. Off-premise connectivity allows all students the same opportunities to not only complete assignments and projects but to also extend their learning regardless of their family's financial ability to provide Internet access and computer use.

Through full funding support of the Mobile Learning Program with EDU2011, the KISD Mobile Learning Program provides a sustainable, affordable, replicable, successful model to invoke long term change in the learning process and the technical model and processes to support this change to a true 21st Century Learning Environment.

2. **Project Costs**

(a)an analysis of the per student or per patron cost of the off-premises connectivity;

- for schools, specify, by term used by the school (for example, by quarter or semester), the number of
students and teachers involved or served as part of the project, the number of those students and teachers
involved or served that were able to participate as a result of E-rate support, and, where appropriate, the number of students at each grade level using the wireless devices for Internet access for each specified term; and for the Southern Tier Library System, indicate the number of library patrons involved or served as part of the project and the number of those patrons involved or served that were added as a result of E-rate funding during the trial period.

YEAR	GOF	BOND FUNDS	e-RATE FUNDING
2009-2010	$ 53,958.50	$ 15,250.00	$ 0
2010-2011	$483,501.51	$312,000.00	$398,064.55
2011-2012	$574,225.13 to date	$ 18,198.18	$602,107.92 approval pending.

Year	Students Served	Teachers Served	Participants served because of E-rate support
2009-10	136	7	143
2010-11	1430	69	1499
2011-12	2267	104	2371

3. Effectiveness of Protective Measures

(a)a detailed description of the measures, including specific software or filtering mechanisms, that were taken to ensure compliance with the Children's Internet Protection Act as well as a description of measures that were taken to protect against waste, fraud and abuse;

Several measures are in place to protect the students using Mobile Devices. All devices in the program are filtered through our district web filtering program even if they connect through the 3G network at home.
Each device has Application Protection which blocks students from installing non-educational applications.
Only teachers have the code to unlock the device to install new apps. The device's phone and text apabilities are turned off so communication is only through district approved and teacher moderated social networking sites.

Katy ISD currently utilizes Cymphonix (Network Composer) for its Secure Web Gateway. Cymphonix is a leader in the market that combines hardware and software into a solution enabling organizations to manage and optimize Internet connectivity while shielding from connection risks. Cymphonix supplies enterprise-class Internet controls that include content filtering, gateway security and application prioritization.   All device traffic is filtered through the Cymphonix Secure Web Gateway, including the Mobile Learning Program.

With Network Composer, Katy ISD administrators can easily allocate bandwidth to mission-critical applications and at the same time protect users from inappropriate content and potentially dangerous and malicious Internet sites. Because every organization has different Internet use and business-process constraints, Network Composer is highly customizable, giving organizations the ability to establish refined policies down to the department, group or even individual level for both Web and application traffic. Katy ISD has instituted (3) policies. First, the "Default" policy is given the most restrictive (CIPA compliant) access. This is reserved for all Elementary students and any unauthenticated user (Guest or Public Network). Second, the "Secondary Student" policy allows Katy ISD administrators to give elevated access to certain websites to junior high and high school students that may not be appropriate or do not fall within the district curriculum guidelines for elementary students. The policy also follows all CIPA requirements. The third policy, "Staff", allows for access to websites not designated for student use while adhering CIPA requirements.

Cymphonix has a full featured reporting engine and allows delegated administrator functions. It provides the highest degree of visibility and responsiveness to known and emerging threats from a converged Internet connection. In addition to this advanced technical solution, responsible use of the devices and the Internet service is taught and modeled as a fundamental part of the training to students, teachers and parents.

4. <u>Lessons Learned</u>
(a)   a description of any technical, operational, or administrative problems or issues associated with implementing the project (such as barriers in using the wireless devices or difficulties with the service) and a description of how those issues were addressed or are being addressed; and

The following technical issues and solutions were identified in the design and implementation phases of the KISD Mobile Learning Project:
- All mobile learning devices (MLD) are required to have Internet access that is filtered for CIPA compliance regardless of the device accessing the Internet from a KISD facility or carrier network.
- The MLDs were treated as non-trusted devices because of limited management capabilities. As a result, they were separated off of the KISD internal network.
- Mobile wireless network coverage and capacity by the provider was limited within the campus.
- Availability of a dedicated Wi-Fi network at the schools to be using the MLDs was required.
- The ability to monitor and report usage was needed.
- Adequate Internet bandwidth for the Wi-Fi and carrier networks to support the mobile learning devices.
- Provide devices with adequate power, durability and functionality.
- Support and service the devices - Technology Integration Specialists dedicated time to implement device setup and activation, teacher training, roll-out activities, parent meetings, troubleshooting and on-going support. A help desk ticket process allowed teachers to report issues and request assistance.
    - More emphasis and direction will be given to utilizing teachers to share their best practices with each other through webinars, face to face trainings and other networking opportunities.
- For program success, teachers need support from district Technology Specialists as well as their campus Administration. Administrators must be involved with forming a common vision and detailed objectives of the program. They have to share that vision with staff, parents, students, and the community.
- Because no device is totally secure, students often find ways to install apps and bypass district restrictions. More emphasis needs to be placed on digital citizenship and classroom management to teach students appropriate use.

Katy ISD implemented a solution that addressed all of these concerns. The campus Wi-Fi networks use Cisco's controller based Light Weight Access Points. Additional Access points were added to the selected schools to provide the increased capacity and coverage requirements of the MLD project. A unique SSID was created for use by the MLDs. A Cisco 4402 controller was added to access a public DMZ. Adding this controller allows us to tunnel traffic from our internal controllers based on the MLD SSID to this DMZ, keeping all access external from our private KISD network. A VPN tunnel was established from Verizon, our MLD service provider, which terminates in the same public access DMZ. All MLDs are setup on the Verizon network to route all traffic over that VPN connection, regardless of where they are trying to connect.

A new CIPA compliant web filter was implemented in the DMZ. This is an in-line filter, so all traffic that flows in and out of the DMZ must run through the CIPA compliant filter managed by KISD. This DMZ is secured by Cisco ASA firewalls that separate these users/devices from the KISD private network as well as the Internet. The filter also provides usage reports of all HTTP and HTTPS traffic.

The service provider's wireless network capacity and the devices are critical components for a successful project. Initially in the pilot project neither the cellular provider's in-building network coverage nor the device fully met the needs and requirements were modified. Throughout the life of the project, a detailed set of technical requirements and configurations have been defined. The competitive bid process provides both the documentation and design specifications from the vendors in order to evaluate the best network, device and cost. Cellular networks and devices change so quickly, the RFP process and the yearly evaluation provide significant benefits to KISD.

The mobile learning project increased the Internet bandwidth capacity needed for Katy ISD. The District has a gigabit circuit to the Internet and had a burstable Internet service of 140 MB. An additional 60 MB of Internet bandwidth capacity was added for 2010 to support the 1500 devices. In 2011, an additional 300 MB of bandwidth was added to support the Mobile Learning Program and the Bring Your Own Device initiative.

A technical concern for this project was the device deployment and support. Network access 24/7 was also required. Katy ISD addressed this solution on multiple levels. On deployment, the wireless service provider is a critical partner in the provisioning and deployment of the devices. The Katy ISD technology department provides a level of support in deployment and training. The teachers provide support for the students, and the District Technology Support Center (help desk) provides support for teachers, technicians and instructional technology personnel. The Katy ISD technology team supports the network, for MLD access and the Wireless service provider provides support for network access at home.

(b) a narrative of the lessons learned as a result of the off-premise wireless project (for example, based on what you learned from the project, how would you plan and implement your project differently if you were doing

Katy ISD is in its third year of implementation. Therefore we have gained feedback from students, parents, teachers, and principals along the way to understand what needed to be changed from year to year. We need e-rate funding to support the device when students take them home. If we want learning to continue outside the school walls in the same fashion students are learning at school, it is imperative the funding come through for the data plan to be funded when students are home.

Looking at the various lessons learned, the Responsible Use Guidelines needs to be incorporated into daily or weekly lessons to ensure students are staying on the path to good digital citizenship while using the MLD or any computing device. Some campus administration found it useful the second year to have regular assemblies with the fifth grade students to talk about issues or concerns around the MLD. When either the principal or assistant principal became involved with talking with the students, we found this to be meaningful and important to the students. To place even more importance on the care and use of the MLD, we ask the students to sign agreements. We also have a initial lesson on the care and use of the MLD.

One important lesson learned is to ensure with parents and teachers that the curriculum does not change. We continue to teach the same objectives within the same scope and sequence as any other campus within Katy ISD.   It is only enhanced due to the fact the device is readily available to them at all time, allowing the teacher to assign resources that are online. Allowing time for training for the curriculum specialists in the core content areas is important to place in the timeline. This training or overview with the curriculum specialists is required to ensure they are aware the power this device brings to the hands of students.

The mobile learning device can't be viewed as a technology project. Therefore you will want to set up meetings with the leaders of the campus to ensure they want to embark on this endeavor. The administration's involvement on this project is critical to the success. Teachers need to see that the support from the administration as they face the challenge of adapting their classroom to this new way of learning. Expectations are presented and agreed upon upfront with the stakeholders before deploying the device to the students was another lesson learned. Those expectations can be different for each campus and with regular meetings and continued training; progression will continue for all even if they are at different places.

Training can be difficult when you have a district that is large with many miles in between each campus. The number of people who can assist on the training are much less than the number of teachers that are being supported. We have learned that we cannot always have the face to face trainings as often as we would like. Therefore we have adapted and overcome by hosting 20-minute webinars. Teachers will usually give you 20 minutes, especially if you stick to the 20 minutes each time.

Start on time, end on time, and then allow those who want to stay in the webinar for more questions can do so. Hosting webinars every Wednesday after school and at 8PM to support the teachers has been useful. We will also host as requested by campuses or if an issue arises based on our Help Desk tickets, the issue will be resolved with a quick video or a webinar.

Getting applications for the device is an important aspect of ensuring the device will be exciting, engaging, and a learning tool for the student. Due to funds we have supported this program with the free applications. The free applications do have ads which can be distracting and some are just not appropriate for our age group of students. Some applications will go down without notice.   We are continually seeking the best applications to put on the students' devices. With a google account, the teacher can manage the applications that she or he wants to the students to have access to.

Prior to rolling out the MLD, the campus administration and teachers need to define the plan for what happens when a student misuses, breaks or loses his or her MLD. Those consequences should be given to the student and the parents at the initial meeting. Again, campuses might be a little different on these consequences. One major lesson learned is to have a monetary value placed on the phone as textbooks do. You do not want to set the price of the phone so far unreachable that parents will never want the device to leave the campus and so low that it will become habit for the student to misplace or lose easily. Some campuses in our district put a $75 charge while others used $125, or $150. The amount was set and agreed upon with the administration and teachers at each campus.

The most important lesson to learn is that the program should not stop when a problem or issue arises. This is should go back to the lesson of Digital Responsibility. You can have numerous filters and protector applications on the phone but some students will still want to see what their limits are by circumventing these deterrents and not use the device for educational purposes. We have learned that the student should go through the consequences as described earlier and be able to earn the MLD back. The program however should continue and the highlight should be on those who are working responsibly in the digital world.